

KLIGLER Iron Agar (KIA)

Medium used for the identification and determination of Enterobacteria.

• CONTENTS (Liter)

Casein Acid	10.0 g
Peptone	10.0 g
Lactose	10.0 g
Glucose	1.0 g
Sodium Chloride	5.0 g
Ferric Ammonium Citrate	0.5 g
Sodium Thiosulfate	0.5 g
Phenol Red	0.025 g
Agar	15.0 g
Final pH = 7.4 ± 0.2 at 25°C	

• PROCEDURE

Suspend 52.03 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into tubes. Arrange tubes in a slanted position.

• INTERPRETATION

KLIGLER Iron Agar (KIA) is a medium used for the identification and determination of Enterobacteria. Casein acid and peptone provide nitrogen, carbon, vitamins and minerals. Lactose and glucose are carbohydrate sources for fermentation. Sodium chloride maintains the osmotic balance. Ferric ammonium citrate and sodium thiosulfate are the components of H₂S indicator system. Phenol red is a pH indicator. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 35 ± 2°C for 18 - 24 hours. Slightly loosed the caps. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light pink

Prepared medium

Appearance: slightly opalescent, May have slight precipitates

Color: orange-red

Incubation conditions: 35 ± 2°C / 18 - 24 hours / loosen the caps

Microorganism	ATCC	Growth	Slant / Butt	Gas	H ₂ S
<i>Escherichia coli</i>	25922	good	acid / acid	+	-
<i>Pseudomonas aeruginosa</i>	27853	good	alkaline / alkaline	-	-
<i>Salmonella typhimurium</i>	14028	good	alkaline / acid	+	+
<i>Shigella flexneri</i>	12022	good	alkaline / acid	-	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

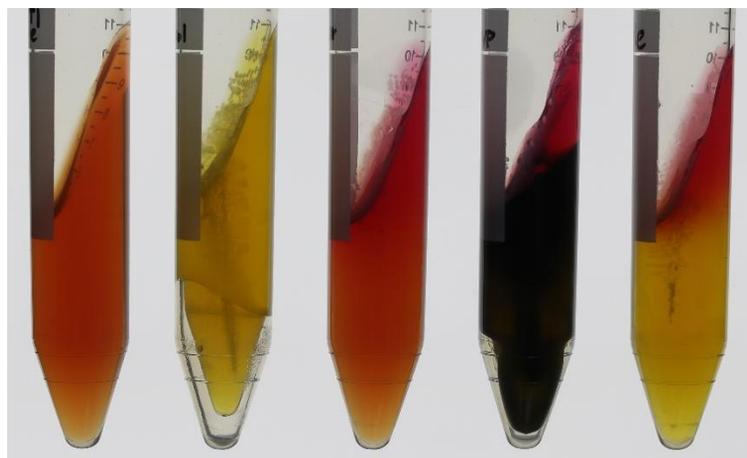
• REFERENCES

1. MacFaddin, J.F. (1976). Biochemical tests for identification of medical bacteria.
2. Kligler, I.J. (1918). J. Exp. Med. 28: 319-322.

• PACKAGE

Cat. No : MB-K1023 KLIGLER Iron Agar (KIA)	500 G
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• MICROBIAL CULTURE IMAGES



None	<i>E.coli</i> ATCC 25922	<i>Pseudomonas</i> <i>aeruginosa</i> ATCC 27853	<i>Salmonella</i> <i>typhimurium</i> ATCC 14028	<i>Shigella flexneri</i> ATCC 12022
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